Syphilis

**Agent:** *Treponema pallidum* (bacteria)

**Mode of Transmission:** Through sexual intercourse, from mother to child through the placenta, and via blood transfusion from an infected donor in the early stage of disease.

**Signs/Symptoms:** The primary stage is characterized by a chancre. The secondary stage includes a skin rash and lesions of the mucous membranes. A latent period follows with no clinical symptoms. In late syphilis, the central nervous system may become sufficiently damaged, causing death.

**Prevention:** Safer sexual practices, screening of all women during early pregnancy to prevent infection of infants, and treatment of infected partners.

**Other Important Information:** Nationwide, the rate of primary and secondary syphilis is on the rise for two populations: men who have sex with men (MSM) and blacks.

### Early Syphilis

Early syphilis includes the primary and secondary stages and early latent syphilis (cases diagnosed within one year from the time of infection). Mirroring national trends, syphilis continues to rise in Virginia. There were 500 cases of early syphilis reported in Virginia during 2008 (Figure 66). This is a 75% increase from the five year average of 285.8 cases per year. Since 2002, incidence has more than doubled from 2.3 to 6.5 per 100,000 in 2008.

The highest incidence occurred in the 20-29 year age group (18.6 per 100,000), followed by the 30-39 year age group (9.9 per 100,000) (Figure 67). The rate in the black population (21.9 per 100,000) was almost ten times the rate in the white population (2.2 per 100,000), and more than three times the rate in the “other” population (6.2 per 100,000). The rate in males was more than seven times the rate in females (11.7 and 1.5
per 100,000, respectively). The male to female ratio has risen from approximately 1:1 to 8:1 over the past ten years, which is indicative of a rising syphilis incidence among MSM. Since 2002, the rate of early syphilis has tripled in the southwest and central regions of Virginia.

**Congenital Syphilis**

Three cases of congenital syphilis were reported in Virginia in 2008, compared with one case in 2007.

**Late Syphilis**

In 2008, 281 cases of late syphilis were reported in Virginia, which was 14% less than the 328 cases reported in 2007. Incidence in the black population was 14 times the incidence in the white population (10.2 and 0.7 per 100,000, respectively), and the rate in males was slightly higher than in females (4.3 and 3.1 per 100,000, respectively). The highest incidence rate was reported in the 50-59 year age group (7.1 per 100,000). Incidence rates were highest in the central and eastern regions, at 5.1 and 4.6 per 100,000, respectively.